

Sub Spec
Approved for
Entry
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A DRIVING DEVICE FOR A CENTRIFUGAL SEPARATOR

Field of the Invention

[0001] The present invention relates to a driving device for a centrifugal separator, more closely a centrifugal separator comprising

- a centrifugal rotor, which is rotatable about a substantially vertical rotational axis,
- a spindle, which extends vertically and at its one end supports the centrifugal rotor,
- a frame, which rotatably supports the spindle during normal operation of the centrifugal rotor by means of a first bearing and a second bearing, said first bearing being arranged between the centrifugal rotor and said second bearing,
- a driving device having an electric motor, which is arranged to drive the spindle and which comprises a stator, which is non-rotatably connected to the frame, and a rotor, which is supported by the spindle between said two bearings,
- a spring device arranged to permit but counteract by spring force, in an area axially between the electric motor and the centrifugal rotor, radial movement of said first bearing relative to the frame, and
- a bearing support member supported by the frame and arranged to prevent substantial radial movement of said second bearing.

Background of the Invention

[0002] A centrifugal separator of this kind is described in DE 37 14 627. The centrifugal rotor in this case is supported at the top of the vertical spindle, and the driving device comprises an electric standard type motor, which may be arranged in two different ways.

[0003] According to a main alternative the electric motor is situated below said second bearing, as shown in the drawing. Also another alternative is suggested, in which the electric standard type motor would be arranged between said two bearings. An arrangement according to the last- mentioned alternative would have the advantage that the whole centrifugal separator became more compact.

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